GEOMETRY

Pearson Appeal of Prentice Hall Geometry and Algebra 2 Common Core Editions ©2012

Geometry Appeal Table of Contents

Indiana Appeal for Prentice Hall Geometry Common Core Edition ©2012

Standards that Received a "2" Rating

Pearson Correlation Documentation			Geometry ©2012 Table of Contents Documentation			Notes
Standard	Definition	Lesson ©2012	Lesson ©2012	Standards Covered	Notes	
G-CO.7	Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.	Lesson 9-5	9-5 Triangle Congruence	G.CO.6, G.CO.7, G.CO.8	This new lesson will help students determine that two triangles are congruent based on a sequence of rigid transformations and use the definition of congruence in terms of rigid motions. Also, students will explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.	

G-CO.8	Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.	Lesson 9-5	9-5 Triangle Congruence	G.CO.6, G.CO.7, G.CO.8	This new lesson will help students determine that two triangles are congruent based on a sequence of rigid transformations and use the definition of congruence in terms of rigid motions. Also, students will explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.	
G-SRT.2	Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of side	Lesson 9-7	9-7 Similarity	G.SRT.2, G.SRT.3	This new lesson will address the standards relating to similarity and dilations. Students will establish that figures are similar if there are a series of rigid motions and a dilation that will map one figure onto the other. Students will also compare transformations that preserve distance and angle with those that do not.	

G-C.4	(+) Construct a tangent line from a point outside a given circle to the circle.	Lesson 12-3	12-3 Inscribed Angles	G.C.2, G.C.3, G.C.4		this is a (+) standard, not a required standard
G-C.5	Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.	Lessons 10-6, 10-7	10-6 Circles and Arcs	G.CO.1, G.C.1, G.C.2, G.C.5	This lesson will be revised to address G.C.1 and G.C.5. Students will prove that any two circles are similar and will show that arcs intercepted by the same angle are proportional to the radii.	
G-GPE.1	Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.	Lesson 12-5	12-5 Circles in the Coordinate Plane	G.GPE.1		

Standards that Received a "1" Rating

Pearson Correlation Documentation			Geometry ©2012 Table of Contents Documentation			Notes
G-CO.13	Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.	Lessons 3-6, 4-5, 10-3	4-5 Isosceles and Equilateral Triangles	G.CO.10, G.CO.13, G.SRT.5	Exercises will be added/revised to address G.CO.13. Students will construct an equilateral triangle.	In the review it was noted that only Lesson 10-3 was reviewed

G-SRT.1.a	A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.	Concept Byte (before 9-6)	Concept Byte: Exploring Dilations	G.SRT.1.a, G.SRT.1.b	In this new lesson, students will experientially determine properties of dilations.	
G-SRT.3	Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.	Lesson 9-7	9-7 Similarity	G.SRT.2, G.SRT.3	This new lesson will address the standards relating to similarity and dilations. Students will establish that figures are similar if there are a series of rigid motions and a dilation that will map one figure onto the other. Students will also compare transformations that preserve distance and angle with those that do not.	
G-SRT.7	Explain and use the relationship between the sine and cosine of complementary angles.	Lesson 8-5	8-5 Laws of Sines and Cosines	G.SRT.7, G.SRT.10, G.SRT.11	This new lesson will replace Concept Byte: Laws of Sines and the lesson that follows. Students will explain and use the relationship between the sine and the cosine of complementary angles, proved those laws and use them to solve problems in contexts.	

G-SRT.10	(+) Prove the Laws of Sines and Cosines and use them to solve problems.	Lesson 8-5	8-5 Laws of Sines and Cosines	G.SRT.7, G.SRT.10, G.SRT.11	This new lesson will replace Concept Byte: Laws of Sines and the lesson that follows. Students will explain and use the relationship between the sine and the cosine of complementary angles, proved those laws and use them to solve problems in contexts.	
G-SRT.11	(+) Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).	Lesson 8-5	8-5 Laws of Sines and Cosines	G.SRT.7, G.SRT.10, G.SRT.11	This new lesson will replace Concept Byte: Laws of Sines and the lesson that follows. Students will explain and use the relationship between the sine and the cosine of complementary angles, proved those laws and use them to solve problems in contexts.	
G-C.1	Prove that all circles are similar.	Lesson 10-6	10-6 Circles and Arcs	G.CO.1, G.C.1, G.C.2, G.C.5	This lesson will be revised to address G.C.1 and G.C.5. Students will prove that any two circles are similar and will show that arcs intercepted by the same angle are proportional to the radii.	
G-GPE.2	Derive the equation of a parabola given a focus and directrix.	Concept Byte (after 12-5)	Concept Byte: Equation of a Parabola	G.GPE.2	This new feature will develop the equation of a parabola given a focus and a directrix.	

G-GPE.6	Find the point on a directed line segment between two given points that partitions the segment in a given ratio.	Concept Byte (before 7-5)	Concept Byte: Exploring Proportions in Triangles	G.GPE.6	This feature will be revised to more fully address G.GPE.6. Students will note that the segment is partitioned.	
G-MG.2	Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).	Lesson 11-7	11-7 Areas and Volumes of Similar Solids	G.MG.1, G.MG.2		
S.CP.1	Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not").	Lesson 13-1	Chapter 13: Probability This new chapter will be added.		These new pages will address the statistics standards listed.	
S.CP.2	Understand that two events *A* and *B* are independent if the probability of *A* and *B* occurring together is the product of their probabilities, and use this characterization to determine if they are independent.	Lesson 13-6	Chapter 13: Probability This new chapter will be added.		These new pages will address the statistics standards listed.	

S.CP.3	Understand the conditional probability of A given B as P(A and B)/P(B), and interpret independence of A and B as saying that the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B.	Lesson 13-6	Chapter 13: Probability This new chapter will be added.		These new pages will address the statistics standards listed.	
S.CP.4	Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities.	Lessons 13-1, 13-2, 13-5	Chapter 13: Probability This new chapter will be added.		These new pages will address the statistics standards listed.	

S.CP.5	Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations.	Lessons 13-2, 13-6	Chapter 13: Probability This new chapter will be added.		These new pages will address the statistics standards listed.	
S.CP.6	Find the conditional probability of A given B as the fraction of B's outcomes that also belong to A, and interpret the answer in terms of the model.	Lesson 13-6	Chapter 13: Probability This new chapter will be added.		These new pages will address the statistics standards listed.	
S.CP.7	Apply the Addition Rule, P(A or B) = P(A) + P(B) – P(A and B), and interpret the answer in terms of the model.	Lesson 13-4	Chapter 13: Probability This new chapter will be added.		These new pages will address the statistics standards listed.	

Common Core State Standards for Mathematics
High School

Following is a correlation of Pearson's *Prentice Hall* Common Core *Geometry* ©2012 to Common Core State Standards for High School Mathematics.

Standards		Where to Find
Geometry		
Congruence		G-CO
Experiment with transformations in the plane		
G-CO.1	Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.	1-2, 1-3, 1-4, 1-6, 3-1, 10-6
G-CO.2	Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch).	9-1, 9-2, 9-3, 9-4, 9-6, Concept Byte (before 9-1)
G-CO.3	Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.	Concept Byte (after 9-3)
G-CO.4	Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.	9-1, 9-2, 9-3
G-CO.5	Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.	9-1, 9-2, 9-3, 9-4, Concept Byte (before 9-2)
Understand congruence in terms of rigid motions		
G-CO.6	Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.	9-1, 9-2, 9-3, 9-4, 9-5
G-CO.7	Use the definition of congruence in terms of rigid	9-5

indicates modeling standards.
(+) indicates additional mathematics that students should learn in order to take advanced courses such as calculus, advanced statistics, or discrete mathematics.

Standards		Where to Find
	motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.	
G-CO.8	Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.	9-5
Prove geometric theorems		
G-CO.9	Prove theorems about lines and angles. *Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.*	2-6, 3-2, 5-2
G-CO.10	Prove theorems about triangles. *Theorems include: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.*	3-5, 4-5, 5-1, 5-4
G-CO.11	Prove theorems about parallelograms. *Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other and its converse, rectangles are parallelograms with congruent diagonals.*	6-2, 6-3, 6-4, 6-5
Make geometric constructions		
G-CO.12	Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). *Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.*	1-6, 3-6, 4-4, 5-2, Concept Byte (before 3-2), Concept Byte (before 4-5), Concept Byte (before 6-9)
G-CO.13	Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.	3-6, 4-5, 10-3
Similarity, Right Triangles, and Trigonometry		G-SRT
Understand similarity in terms of similarity transformations		
G-SRT.1.a	A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.	Concept Byte (before 9-6)

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Standards		Where to Find
G-SRT.1.b	The dilation of a line segment is longer or shorter in the ratio given by the scale factor.	Concept Byte (before 9-6)
G-SRT.2	Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of side	9-7
G-SRT.3	Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.	9-7
Prove theorems involving similarity		
G-SRT.4	Prove theorems about triangles. *Theorems include: a line parallel to one side of a triangle divides the other two proportionally and its converse; the Pythagorean Theorem proved using triangle similarity.*	7-5, 8-1
G-SRT.5	Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.	4-2, 4-3, 4-4, 4-5, 4-6, 4-7, 5-1, 5-2, 5-4, 6-1, 6-2, 6-3, 6-4, 6-5, 6-6, 7-2, 7-3, 7-4
Define trigonometric ratios and solve problems involving right triangles		
G-SRT.6	Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.	Concept Byte (before Lesson 8-3)
G-SRT.7	Explain and use the relationship between the sine and cosine of complementary angles.	8-5
G-SRT.8	Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.	8-1, 8-2, 8-3, 8-4, Concept Byte (before 8-4)
Apply trigonometry to general triangles		
G-SRT.9	(+) Derive the formula $A = 1/2\ ab \sin(C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.	10-5
G-SRT.10	(+) Prove the Laws of Sines and Cosines and use them to solve problems.	8-5
G-SRT.11	(+) Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).	8-5

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Standards		Where to Find
Circles		G-C
Understand and apply theorems about circles		
G-C.1	Prove that all circles are similar.	10-6
G-C.2	Identify and describe relationships among inscribed angles, radii, and chords. *Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.*	12-2, 12-3
G-C.3	Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.	5-3, 12-3
G-C.4	(+) Construct a tangent line from a point outside a given circle to the circle.	12-3
Find arc lengths and areas of sectors of circles		
G-C.5	Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.	10-6, 10-7
Expressing Geometric Properties with Equations		G-GPE
Translate between the geometric description and the equation for a conic section		
G-GPE.1	Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.	12-5
G-GPE.2	Derive the equation of a parabola given a focus and directrix.	Concept Byte (after 12-5)
Use coordinates to prove simple geometric theorems algebraically		
G-GPE.4	Use coordinates to prove simple geometric theorems algebraically. *For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point (1, √3) lies on the circle centered at the origin and containing the point (0, 2).*	6-9
G-GPE.5	Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).	3-8, 7-4
G-GPE.6	Find the point on a directed line segment between two given points that partitions the segment in a	Concept Byte (before 7-5)

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Standards		Where to Find
	given ratio.	
G-GPE.7	Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.	6-7, 10-1
Geometric Measurement and Dimension		G-GMD
Explain volume formulas and use them to solve problems		
G-GMD.1	Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. *Use dissection arguments, Cavalieri's principle, and informal limit arguments.*	11-4, Concept Byte (before 10-7Concept Byte (before 11-5)
G-GMD.3	Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.	11-4, 11-5, 11-6,), Concept Byte (following 10-7),
Visualize relationships between two-dimensional and three-dimensional objects		
G-GMD.4	Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.	11-1, 12-6
Modeling with Geometry		G-MG
Apply geometric concepts in modeling situations		
G-MG.1	Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).	8-3, 10-1, 10-2, 11-2, 11-3, 11-4, 11-5, 11-6
G-MG.2	Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).	11-7
G-MG.3	Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).	3-4
Statistics and Probability All standards in this section have a close relation to modeling		
Conditional Probability and the Rules of Probability		S-CP
Understand independence and conditional probability and use them to interpret data		
S-CP.1	Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or,"	13-1

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Standards		Where to Find
	"and," "not").	
S-CP.2	Understand that two events *A* and *B* are independent if the probability of *A* and *B* occurring together is the product of their probabilities, and use this characterization to determine if they are independent.	13-6
S-CP.3	Understand the conditional probability of *A* given *B* as *P*(*A* and *B*)/*P*(*B*), and interpret independence of *A* and *B* as saying that the conditional probability of *A* given *B* is the same as the probability of *A*, and the conditional probability of *B* given *A* is the same as the probability of *B*.	13-6
S-CP.4	Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. *For example, collect data from a random sample of students in your school on their favorite subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.*	13-1, 13-2, 13-5
S-CP.5	Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. *For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.*	13-2, 13-6
Use the rules of probability to compute probabilities of compound events in a uniform probability model		
S-CP.6	Find the conditional probability of *A* given *B* as the fraction of *B*'s outcomes that also belong to *A*, and interpret the answer in terms of the model.	13-6
S-CP.7	Apply the Addition Rule, *P*(*A* or *B*) = *P*(*A*) + *P*(*B*) – *P*(*A* and *B*), and interpret the answer in terms of the model.	13-4
S-CP.8	(+) Apply the general Multiplication Rule in a uniform probability model, *P*(*A* and *B*) = *P*(*A*)*P*(*B*|*A*) = *P*(*B*)*P*(*A*|*B*), and interpret the answer in terms of the model.	13-4
S-CP.9	(+) Use permutations and combinations to compute probabilities of compound events and solve problems.	13-4

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Standards		Where to Find
Using Probability to Make Decisions		S-MD
Use probability to evaluate outcomes of decisions		
S-MD.6	(+) Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).	13-7, Concept Byte (following 13-7)
S-MD.7	(+) Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).	13-7, Concept Byte (following 13-7)

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2-5	Reasoning in Algebra and Geometry	Prepares for G.CO.9	
2-6	Proving Angles Congruent	G.CO.9	
	Chapter Review, Chapter Test, Cumulative Test Prep		The cumulative test prep will be revised as needed to more fully align to CCSS.
Chapter 3 Parallel and Perpendicular Lines			
3-1	Lines and Angles	G.CO.1	
	Concept Byte: Parallel Lines and Related Angles	Prepares for G.CO.9, G.CO.12	
3-2	Properties of Parallel Lines	G.CO.9	Lesson will be revised so that Same-Side Interior Angles is a postulate and Corresponding Angles of Parallel Lines is proved.
3-3	Proving Lines Parallel	Extends G.CO.9	
3-4	Parallel and Perpendicular Lines	G.MG.3	
	Concept Byte: Perpendicular Lines and Planes	Extends G.CO.1	
3-5	Parallel Lines and Triangles	G.CO.10	
	Concept Byte: Exploring Spherical Geometry	Extends G.CO.1	
3-6	Constructing Parallel and Perpendicular Lines	G.CO.12, G.CO.13	
3-7	Equations of Lines in the Coordinate Plane	Prepares for G.GPE.5	
3-8	Slopes of Parallel and Perpendicular Lines	G.GPE.5	This lesson will be revised to address more fully G.GPE.5. Students will explain the slope criteria of parallel lines and perpendicular lines.
	Chapter Review, Chapter Test, Cumulative Test Prep		The cumulative test prep will be revised as needed to more fully align to CCSS.
Chapter 4 Congruent Triangles			
4-1	Congruent Figures	Prepares for G.SRT.5	
	Concept Byte: Building Congruent	Prepares for G.SRT.5	

	Triangles		
4-2	Triangle Congruence by SSS and SAS	G.SRT.5	
4-3	Triangle Congruence by ASA and AAS	G.SRT.5	
	Concept Byte: Exploring AAA and SSA	Extends G.SRT.5	
4-4	Using Corresponding Parts of Congruent Triangles	G.SRT.5, G.CO.12	
	Concept Byte: Paper-Folding Conjectures	G.CO.12	
4-5	Isosceles and Equilateral Triangles	G.CO.10, G.CO.13, G.SRT.5	Exercises will be added/revised to address G.CO.13. Students will construct an equilateral triangle.
4-6	Congruence in Right Triangles	G.SRT.5	
4-7	Congruence in Overlapping Triangles	G.SRT.5	
	Algebra Review: Systems of Linear Equations	Reviews A.REI.6	
	Chapter Review, Chapter Test, Cumulative Test Prep		The cumulative test prep will be revised as needed to more fully align to CCSS.
Chapter 5 Relationships Within Triangles			
	Concept Byte: Investigating Midsegments	Prepares for G.CO.10	
5-1	Midsegments of Triangles	G.CO.10, G.SRT.5	
5-2	Perpendicular and Angle Bisectors	G.CO.9, G.CO.12, G.SRT.5	Exercises will be added/revised to address G.CO.12. Students will make formal geometric constructions with a variety of tools and will justify constructions done in earlier lessons.
	Concept Byte: Paper Folding Bisectors	Prepares for G.C.3	
5-3	Bisectors in Triangles	G.C.3	
	Concept Byte: Special Segments in Triangles	Prepares for G.CO.9	
5-4	Medians and Altitudes	G.CO.10	
5-5	Indirect Proof	Extends G.CO.10	

	Algebra Review: Solving Inequalities	Reviews A.CED.1	
5-6	Inequalities in One Triangle	Extends G.CO.10	
5-7	Inequalities in Two Triangles	Extends G.CO.10	
	Chapter Review, Chapter Test, Cumulative Test Prep		The cumulative test prep will be revised as needed to more fully align to CCSS.
Chapter 6 Polygons and Quadrilaterals			
	Concept Byte: Exterior Angles of Polygons	Prepares for G.SRT.5	
6-1	The Polygon-Angle Sum Theorems	G.SRT.5	
6-2	Properties of Parallelograms	G.CO.11, G.SRT.5	
6-3	Proving That a Quadrilateral Is a Parallelogram	G.CO.11, G.SRT.5	
6-4	Properties of Rhombuses, Rectangles, and Squares	G.CO.11, G.SRT.5	
6-5	Conditions for Rhombuses, Rectangles, and Squares	G.CO.11, G.SRT.5	
6-6	Trapezoids and Kites	G.SRT.5	
	Algebra Review: Simplifying Radicals	Prepares for G.GPE.7	
6-7	Polygons in the Coordinate Plane	G.GPE.7	
6-8	Applying Coordinate Geometry	Prepares for G.GPE.4	
	Concept Byte: Quadrilaterals in Quadrilaterals	G.CO.12	
6-9	Proofs Using Coordinate Geometry	G.GPE.4	
	Chapter Review, Chapter Test, Cumulative Test Prep		The cumulative test prep will be revised as needed to more fully align to CCSS.
Chapter 7 Similarity			
7-1	Ratios and Proportions	Prepares for G.SRT.5	
	Algebra Review: Solving Quadratic Equations	Reviews A.CED.1	
7-2	Similar Polygons	G.SRT.5	
	Concept Bytes: Fractals	Extends G.SRT.5	

7-3	Proving Triangles Similar	G.SRT.5	
7-4	Similarity in Right Triangles	G.SRT.5, G.GPE.5	This lesson will be revised to address G.GPE.5. Students will prove that the slope of parallel lines is the same and that slope of perpendicular lines has product of -1.
	Concept Byte: The Golden Ratio	Extends G.SRT.5	
	Concept Byte: Exploring Proportions in Triangles	G.GPE.6	This feature will be revised to more fully address G.GPE.6. Students will note that the segment is partitioned.
7-5	Proportions in Triangles	G.SRT.4	
	Chapter Review, Chapter Test, Cumulative Test Prep		The cumulative test prep will be revised as needed to more fully align to CCSS.
Chapter 8 Right Triangles and Trigonometry			
	Concept Byte: The Pythagorean Theorem	Prepares for G.SRT.4	
8-1	The Pythagorean Theorem and Its Converse	G.SRT.4, G.SRT.8	This lesson will be revised to more fully address G.SRT.4. The Pythagorean Theorem will be proven using triangle similarity.
8-2	Special Right Triangles	G.SRT.8	
	Concept Byte: Exploring Trigonometric Ratios	G.SRT.6	
8-3	Trigonometry	G.SRT.8, G.MG.1	
	Concept Byte: Measuring From Afar	G.SRT.8	
8-4	Angles of Elevation and Depression	G.SRT.8	
8-5	Laws of Sines and Cosines	G.SRT.7, G.SRT.10, G.SRT.11	This new lesson will replace Concept Byte: Laws of Sines and the lesson that follows. Students will explain and use the relationship between the sine and the cosine of complementary angles, proved those laws and use

			them to solve problems in contexts.
	Chapter Review, Chapter Test, Cumulative Test Prep		The cumulative test prep will be revised as needed to more fully align to CCSS.
Chapter 9 Transformations This chapter will be substantively revised to present congruence and similarity in terms of transformations and dilations.			
	Concept Byte: Tracing Paper Transformations	G.CO.2	This new feature will review transformations in the plane.
9-1	Translations	G.CO.2, G.CO.4, G.CO.5, G.CO.6	This new lesson will lead students to establish the connection of rigid motion to translations. Students will also use functional notation for translations and show a sequence of steps to translate a figure onto another.
	Concept Byte: Paper Folding and Reflections	G.CO.5	
9-2	Reflections	G.CO.2, G.CO.4, G.CO.5, G.CO.6	This new lesson will lead students to establish the connection of rigid motion to reflections. Students will also use functional notation for translations and show a sequence of steps to reflect a figure onto another.
9-3	Rotations	G.CO.2, G.CO.4, G.CO.5, G.CO.6	This new lesson will lead students to establish the connection of rigid motion to rotation. Students will also use functional notation for translations and show a sequence of steps to rotate a figure onto another.
	Concept Byte: Symmetry	G.CO.3	This new lesson will focus on describing rotations and reflections that carry a figure onto itself.
9-4	Compositions of Isometries	G.CO.2, G.CO.5,	This new lesson will

		G.CO.6	connect isometry to rigid motion. Students will draw the transformed figures, given a figure and a transformation and will specify a sequence of transformations that place a figure onto another.
9-5	Triangle Congruence	G.CO.6, G.CO.7, G.CO.8	This new lesson will help students determine that two triangles are congruent based on a sequence of rigid transformations and use the definition of congruence in terms of rigid motions. Also, students will explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.
	Concept Byte: Exploring Dilations	G.SRT.1.a, G.SRT.1.b	In this new lesson, students will experientially determine properties of dilations.
9-6	Dilations	G.CO.2	This new lesson will address the standards relating to similarity and dilations. Students will establish that figures are similar if there are a series of rigid motions and a dilation that will map one figure onto the other. Students will also compare transformations that preserve distance and angle with those that do not.
9-7	Similarity	G.SRT.2, G.SRT.3	This new lesson will address the standards relating to similarity and dilations. Students will establish that figures are similar if there are a series of rigid motions and a dilation that will map one figure onto the other.

			Students will also compare transformations that preserve distance and angle with those that do not.
	Pull It All Together		This feature will be revised to reflect the revised content of the chapter.
	Chapter Review, Chapter Test, Cumulative Test Prep		The Chapter Review and Chapter Test will be updated to match new lessons. The cumulative test prep will be revised as needed to more fully align to CCSS.
Chapter 10 Area			
	Review: Developing Formulas for Area	Prepares for G.GMD.3	
10-1	Areas of Parallelograms and Triangles	G.GPE.7, G.MG.1	
10-2	Areas of Trapezoids, Rhombuses, and Kites	G.MG.1	
10-3	Areas of Regular Polygons	G.CO.13	
10-4	Perimeters and Areas of Similar Figures		
10-5	Trigonometry and Area	G.SRT.9	
10-6	Circles and Arcs	G.CO.1, G.C.1, G.C.2, G.C.5	This lesson will be revised to address G.C.1 and G.C.5. Students will prove that any two circles are similar and will show that arcs intercepted by the same angle are proportional to the radii.
	Concept Byte: Circle Graphs	Applies G.C.2	
	Concept Byte: Exploring the Area of a Circle	G.GMD.1	
10-7	Areas of Circles and Sectors	G.C.5	
	Concept Byte: Exploring Area and Circumference	G.GMD.1	
10-8	Geometric Probability	Prepares for S.CP.1	
	Chapter Review, Chapter Test,		The cumulative test prep

	Cumulative Test Prep		will be revised as needed to more fully align to CCSS.
Chapter 11 Surface Area and Volume			
11-1	Space Figures and Cross Sections	G.GMD.4	
	Concept Byte: Perspective Drawing	Extends G.GMD.4	
	Concept Byte: Literal Equations	Reviews A.CED.4	
11-2	Surface Areas of Prisms and Cylinders	G.MG.1	
11-3	Surface Areas of Pyramids and Cones	G.MG.1	
11-4	Volumes of Prisms and Cylinders	G.GMD.1, G.GMD.3, G.MG.1	
	Concept Byte: Finding Volume	G.GMD.1	
11-5	Volumes of Pyramids and Cones	G.GMD.3, G.MG.1	
11-6	Surface Area and Volume of Spheres	G.GMD.3, G.MG.1	
	Concept Byte: Exploring Similar Solids	G.MG.1	
11-7	Areas and Volumes of Similar Solids	G.MG.1, G.MG.2	
	Chapter Review, Chapter Test, Cumulative Test Prep		The cumulative test prep will be revised as needed to more fully align to CCSS.
Chapter 12 Circles			
12-1	Tangent Lines	Prepares for G.C.4	
	Concept Byte: Paper Folding With Circles	Prepares for G.C.2	
12-2	Chords and Arcs	G.C.2	
12-3	Inscribed Angles	G.C.2, G.C.3, G.C.4	
	Concept Byte: Exploring Chords and Secants	Extends G.C.2	
12-4	Angle Measures and Segment lengths	Extends G.C.2	
12-5	Circles in the Coordinate Plane	G.GPE.1	
	Concept Byte: Equation of a Parabola	G.GPE.2	This new feature will develop the equation of a parabola given a focus and a directrix.
12-6	Locus: A Set of Points	G.GMD.4	

	Chapter Review, Chapter Test, Cumulative Test Prep		The cumulative test prep will be added.
Chapter 13: Probability **This new chapter will be added.**			
13-1	Theoretical and Experimental Probability	S.CP.1, S.CP.4	These new pages will address the statistics standards listed.
13-2	Probability Distribution and Frequency Tables	S.CP.4, S.CP.5	
13-3	Permutations and Combinations	Prepares for S.CP.9	
13-4	Compound Probability and Probability of Multiple Events	S.CP.7, S.CP.8, S.CP.9	
13-5	Contingency Tables	S.CP.4	
13-6	Conditional Probability	S.CP.2, S.CP.3, S.CP.5, S.CP.6	
13-7	Modeling Randomness	S.MD.6, S.MD.7	New pages
	Concept Byte: Probability and Decision Making	S.MD.6, S.MD.7	
	Pull It All Together		
	Chapter Review		
	Chapter Test		
	End of Course Test		These pages will be update to reflect revised and new content added to the course.
	Index		Index will be updated to reflect changes made to the lessons.
	Glossary		Pages will be updated to reflect revised definitions and new terms added to the course.
	Selected Answers		Selected answers will be updated to reflect changes made to the lessons and to include the new lessons.